

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

10/11/48

TECHNOLOGY CENTRE

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Applicant's or agent's file reference EL00022PCT	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IEA/416)	
International application No. PCT/JP00/07457	International filing date (day/month/year) 25 October 2000 (25.10.00)	Priority date (day/month/year) 26 October 1999 (26.10.99)
International Patent Classification (IPC) or national classification and IPC H01L 21/205, 21/02, 21/3065, 21/66		
Applicant TOKYO ELECTRON LIMITED		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 25 May 2001 (25.05.01)	Date of completion of this report 19 December 2001 (19.12.2001)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP00/07457

## I. Basis of the report

### 1. With regard to the **elements** of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
 pages 1-41 , as originally filed  
 pages \_\_\_\_\_ , filed with the demand  
 pages \_\_\_\_\_ , filed with the letter of \_\_\_\_\_
- ☒ the claims:  
 pages 1-23 , as originally filed  
 pages 24.25 , as amended (together with any statement under Article 19  
 pages \_\_\_\_\_ , filed with the demand  
 pages \_\_\_\_\_ , filed with the letter of \_\_\_\_\_
- ☒ the drawings:  
 pages 1-23 , as originally filed  
 pages \_\_\_\_\_ , filed with the demand  
 pages \_\_\_\_\_ , filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
 pages \_\_\_\_\_ , as originally filed  
 pages \_\_\_\_\_ , filed with the demand  
 pages \_\_\_\_\_ , filed with the letter of \_\_\_\_\_

### 2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

### 3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/JP 00/07457

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	2, 5-13, 16, 19-25	YES
	Claims	1, 3, 4, 14, 15, 17, 18	NO
Inventive step (IS)	Claims	24, 25	YES
	Claims	1-23	NO
Industrial applicability (IA)	Claims	1-25	YES
	Claims		NO

### 2. Citations and explanations

Document 1: JP, 62-151562, A (Mitsubishi Electric Corp.), claims; page 2, lower right column, lines 16 to 19; Fig. 1

Document 2: JP, 6-342761, A (Hitachi, Ltd.), claims

Document 3: JP, 10-212197, A (Kyocera Corporation), claims; Fig. 2

Document 4: JP, 9-134912, A (Hitachi, Ltd.), claims; Fig. 1

Document 5: GB, 2265634, A (Toshiba Corp.), Fig. 5; page 21 & JP, 5-275352, A, column 3, line 50 to column 4, line 4; column 4, lines 36 to 39

Document 6: JP, 5-291188, A (Hitachi, Ltd.), claims

Document 7: JP, 9-129529, A (Tokyo Electron Limited), claims

Claims 1, 3, 4, 14, 15, 17 and 18

The invention set forth in Claims 1, 4, 14, 15 and 18 lacks novelty over Documents 1, 2, 3 and 4 cited in the international search report. The invention set forth in Claims 3 and 17 lacks novelty over Document 1 cited in the international search report.

Claims 2, 5 to 13 and 16

The invention set forth in Claims 2, 5 to 13 and 16

does not involve an inventive step in the light of Document 1, 2, 3, or 4 and Documents 5, 6 and 7.

The feature of using a Fourier transform spectroscope as a gas analysing means is common practice and is disclosed, for example, in Document 5 cited in the international search report.

#### Claims 19 to 23

The invention set forth in Claims 19 to 23 does not involve an inventive step in the light of Document 1, 2, 3, or 4 and Documents 5, 6 and 7.

The feature wherein, in order to manage devices, analysis data from each of the devices is collected via a data communication network and managed is well known and is disclosed, for example, in Documents 6 and 7.

#### Claims 24 and 25

The invention set forth in Claims 24 and 25 involves an inventive step in relation to Documents 1 to 7 cited in the international search report.

Document 6 cited in the international search report discloses the feature wherein mass is analysed using the gas before and after the exhaust pump by means of a differential exhaust system. However, the feature wherein, in order to sample the process exhaust gas in a state of high pressure, a Fourier transform spectroscope is connected to the outlet side of the vacuum pump expelling that process gas and the process gas is sampled from the same spot and monitored using the Fourier transform spectroscope, is not disclosed in Documents 1 to 7 cited in the international search report.